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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/619,827

07/20/2000

Yang Cao

Cao-21

3535

7590

05/07/2004

TROUTMAN, SANDERS, MAYS & VALENTINE

attn: JOHN CURTIN, ESQ.

1660 INTERNATIONAL DRIVE,

SUITE 600

MCLEAN, VA 22102

EXAMINER

BYRD, JOHN

ART UNIT

PAPER NUMBER

2667

4

DATE MAILED: 05/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/619,827

Applicant(s)

CAO ET AL.

Examiner

John B Byrd

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-8 and 11-17 is/are rejected.
- 7) ☒ Claim(s) 4, 9, 10, 18, 19 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language

2. Claims 1 – 3, and 7 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Cloonan et al.

A) Consider claim 1, Cloonan et al shows in figure 17, item 14A, switch fabrics that contains at least one circuit switch fabric, which is labeled "STM Portion," and at least one packet switch fabric, which is labeled "ATM Portion" in the said figure. Cloonan also shows in figure 17, items 612 and 616, components that function as controllers (see fig. 3, item 20) that control the routing of the telecommunications traffic in the referenced prior art. Note the description of figure 17 located in column 5, line 65–67; and Cloonan's claim 1, starting in column 22, line 66 and ending on column 23, line 46 of the prior art reference, Cloonan et al (US5,537,403).

B) Consider claim 2, Cloonan discloses that a request vector is created and is understood as being a part of the traffic overhead, and is used to determine the traffic route (see column 7, lines 46 – 51).

C) Consider claim 3, Cloonan shows in figure 5, items 12₀ – 12₂₅₅, and explains in column 14, lines 20 – 31 that the SONET Header information is used to determine the switch connection to route the traffic.

D) Consider claim 7, Cloonan discloses the configuration of providing a plurality of STM switches (see column 22, lines 35 –38). Cloone et al also anticipates claim 7 of this application with the prior art's claim 1 (see column 23, line 22 – 30).

3. Claims 1 – 3, 5 – 8, and 11 - 13 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Brolin et al (hereinafter "Brolin").

A) Consider claim 1, Brolin discloses in figure 1; one or more circuit switch fabrics (36a), one or more packet switch fabrics (36c), and a controller configured to route telecommunications traffic to circuit or packet switch fabrics (35). Reference is also made to Brolin's claims: claim 22, column 25, line 28; claim 13, column 24, line 49; column 16, lines 42 – 46.

B) Consider claim 2, Brolin discusses the use of the overhead byte information examined by the controller (identified as the management and control unit (MCU)). See column 18, lines 39 – 44 of the reference.

C) Consider claim 3, Brolin discloses the examination by the controller of SONET overhead information (see column 18, lines 10 – 22; column 13, lines 1 – 15; column 11, lines 57 - 61).

D) Consider claim 5, Brolin discloses in the prior art an IP switch fabric functioning as a controller (see column 7, lines 43-45). Brolin also discuss the use of allowing the circuit switch fabric be that of STS-1 electrical or any other service (see column 8, lines 5 and 6). Brolin et al disclose the packet switch fabric inclusion in reference claim 19, column 25, lines 17 – 21.

E) Consider claim 6, Brolin discloses in the prior art an IP switch fabric unit that performs switching at the IP layer of the TCP/IP protocol stack, and can also provide ATM traffic switching functionalities in the referenced prior art (see column 7, lines 37 – 44).

F) Consider claim 7, Brolin discloses in figure 3 a configuration that embodies a plurality of circuit switch fabrics. Description of figure 3 configured with STM switch fabrics are found in column 9, lines 22 –36.

G) Consider claims 8, and 11 – 13, Brolin discloses how the prior art uses information obtained from the SONET ring and is converted to an electrical signal which is then processed by the controller (MCU) to determine the appropriate switching fabric (see column 17, lines 18 – 46; column 18, lines 10 - 22).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 14 – 17, rejected under 35 U.S.C. 103(a) as being unpatentable over Brolin in view of Raj Jain (hereinafter "Raj").

A) Consider claims 14 – 17, the Brolin reference discloses a method of examining the SONET/SDH path overhead bytes to determine the traffic path (see column 18, lines 2 – 9). Brolin differs from the claimed invention in that the specific path overhead bytes to be examined for further processing are not disclosed. Raj discloses (see page 163, paragraph 3) the purpose of each of the nine path overhead bytes of an STS-1, specifically, the C2 byte is described and the purpose stated (i.e., to interpret the payload). Since the SONET traffic being delivered to the invention needs to be interpreted by the controller to make a route decision, it would have been obvious to those skilled in the art to implement the methods of Brolin with the information from Raj, which to obtain the payload description information from the C2 byte of the STS to make a routing decision.

Allowable Subject Matter

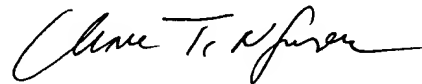
5. Claims 4, 9, 10, 18, and 19 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B Byrd whose telephone number is 703-305-4682. The examiner can normally be reached on 7:30am - 4:00pm (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H Pham can be reached on 703-305-4378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JBB



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